



Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

John F. McCann
Vice President, Regulatory Assurance
Tel. (914) 272-3370

ENOC-14-00015

July 24, 2014

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Response to Request For Additional Information for Review of the
Decommissioning Funding Plans for Entergy Nuclear Operations, Inc.
Independent Spent Fuel Storage Installations

Big Rock Point
Docket No. 72-43
License No. DPR-6

Palisades Nuclear Power Plant
Docket No. 72-07
License No. DPR-20

Indian Point Nuclear Generating Stations
1, 2, and 3
Docket No. 72-51
License Nos. DPR-5, DPR-26, DPR-64

Pilgrim Nuclear Power Station
Docket No. 72-1044
License No. DPR-35

James A. FitzPatrick
Nuclear Power Plant
Docket No. 72-12
License No. DPR-59

Vermont Yankee
Nuclear Power Station
Docket No. 72-59
License No. DPR-28

- REFERENCES:
1. Entergy Nuclear Operations, Inc. letter to the NRC, *ISFSI Decommissioning Funding Plans (10 CFR 72.30)*, dated December 13, 2012, (ADAMS Accession No. ML12352A126)
 2. Entergy Nuclear Operations, Inc. letter to the NRC, *ISFSI Decommissioning Funding Plans (10 CFR 72.30) - Correction Notice*, dated January 8, 2013, (ADAMS Accession No. ML13010A042)
 3. NRC letter to Entergy Nuclear Operations, Inc., *Request for Additional Information for Review of the Decommissioning Funding Plans for Entergy Nuclear Operations, Inc. Independent Spent Fuel Storage Installations*, dated April 30, 2014, (ADAMS Accession No. ML14120A194)

Dear Sir or Madam:

By letter dated December 13, 2012 (Reference 1), Entergy Nuclear Operations, Inc. (ENO), acting as agent for the owner licensees listed in the letter, submitted Independent Spent Fuel Storage Installation (ISFSI) decommissioning funding plans pursuant to 10 CFR 72.30. By letter dated January 8, 2013 (Reference 2), ENO submitted a correction notice to Reference 1 correcting an administrative error in a summary table. By letter dated April 30,

2014 (Reference 3), the NRC issued a Request for Additional Information (RAI) related to the Reference 1 report for Big Rock Point, Indian Point Nuclear Generating Stations 1, 2, and 3, James A. FitzPatrick Nuclear Power Plant, Palisades Nuclear Plant, Pilgrim Nuclear Power Station, and Vermont Yankee Nuclear Power Station. The attachment to this letter provides ENO's responses on behalf of the subject licensees to the RAI.

This letter contains no new commitments. If you have any questions, please contact Mr. David Mannai, Senior Manager, Fleet Regulatory Assurance, at 802-380-1175.

Sincerely,



JFM / ljs / ghd

Attachment: Response to Request for Additional Information

cc: Ms. Kristina L. Banovac, Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
MS 3WFN/14 A44
Washington, DC 20555

Mr. T. G. Mitchell (ECH)
Mr. M. Perito (ECH)
Ms. W. C. Curry (ECH)
Mr. J. A. Ventosa (IPEC)

Mr. L. M. Coyle (JAF)
Mr. T. J. Vitale (PLP)
Mr. J. A. Dent (PNP)
Mr. C. J. Wamser (VTY)

NRC Regional Administrator, Region I
NRC Regional Administrator, Region III

NRC Project Manager, Indian Point 1
NRC Project Manager, Indian Point 2/3
NRC Project Manager, FitzPatrick
NRC Project Manager, Big Rock Point

NRC Project Manager, Palisades
NRC Project Manager, Pilgrim
NRC Project Manager, Vermont Yankee

NRC Resident Inspector, Indian Point
NRC Resident Inspector, FitzPatrick
NRC Resident Inspector, Palisades

NRC Resident Inspector, Pilgrim
NRC Resident Inspector, Vermont Yankee

State of Massachusetts
State of Michigan

State of New York
State of Vermont

bcc: Mr. C. M. Adner (JAF)
Mr. J. A. Aluise (ENT)
Mr. C. C. Chappell (VY)
Ms. W. C. Curry (ECH)
Mr. T. A. Davis (PAL)
Mr. B. S. Ford (ECH)
Mr. D. Gibbs (ECH)
Mr. W. B. Glew (WPO)
Mr. B. E. Green (TMBR)
Mr. T. R. Jones (WPO)
Mr. J. R. Lynch (PNP)
Mr. D. J. Mannai (WPO)
Mr. T. A. Ngau (ECH)
Mr. L. J. Smith (ECH)
Ms. S. W. Turnage (ECH)
Mr. R. W. Walpole (IPEC)
Corporate File

ATTACHMENT

ENOC-14-00015

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
ENTERGY NUCLEAR OPERATIONS, INC.
DOCKET NOS. 72-43, 72-51, 72-1044, 72-07, 72-12, 72-59
DECOMMISSIONING FUNDING PLANS FOR INDEPENDENT SPENT FUEL
STORAGE INSTALLATIONS FOR
BIG ROCK POINT, INDIAN POINT NUCLEAR GENERATING STATIONS 1, 2, & 3,
PILGRIM NUCLEAR POWER STATION, PALISADES NUCLEAR PLANT,
JAMES A. FITZPATRICK NUCLEAR POWER PLANT, AND
VERMONT YANKEE NUCLEAR POWER STATION

By letter dated December 13, 2012 (ADAMS Accession No. ML12352A126), Entergy Nuclear Operations, Inc. (ENO), acting as agent for the owner licensees listed in the letter, submitted Independent Spent Fuel Storage Installation (ISFSI) decommissioning funding plans pursuant to 10 CFR 72.30. By letter dated January 8, 2013 (ADAMS Accession No. ML13010A042), ENO submitted a correction notice to the December 13th letter correcting an administrative error in a summary table. By letter dated April 30, 2014 (ADAMS Accession No. ML14120A194), the NRC issued a Request for Additional Information (RAI) related to the ISFSI decommissioning reports for Big Rock Point, Indian Point Nuclear Generating Stations 1, 2, and 3, James A. FitzPatrick Nuclear Power Plant, Palisades Nuclear Plant, Pilgrim Nuclear Power Station, and Vermont Yankee Nuclear Power Station. ENO's response is provided below.

RAI #1: Certification of Financial Assurance

In the December 13, 2012, submittal, ENO stated for each licensee on whose behalf it submitted a decommissioning funding plan:

“The attachment for each plant shows that the surpluses in the 10 CFR 50.75 Decommissioning Trust Funds exceed the estimated costs of ISFSI decommissioning, as summarized in the following table. The Trust Fund balances account for the 10 CFR 50 license expiration dates and the ISFSI decommissioning cost estimates (DCE) assume all costs are incurred in the year following the year in which spent fuel has been fully removed from the ISFSI. The values are reported in 2012 dollars. The fund value for Big Rock Point is in the form of a Parent Guarantee, since the 10 CFR 50.75 Decommissioning Trust Fund is no longer applicable for that site. This letter constitutes a certification that financial assurance is provided to cover the estimated costs of ISFSI decommissioning....”

It is not evident from either your Decommissioning Funding Status reports dated March 31, 2011, (ADAMS Accession No. ML110940051) and March 29, 2013, (ADAMS Accession No. ML13092A121), or your ISFSI-related submission, that funds specific to ISFSI decommissioning are accounted for in either the radiological or non-radiological portions of your decommissioning trust accounts. Accordingly, the NRC staff cannot determine whether funds for ISFSI decommissioning reside within your trust accounts and whether Entergy is in compliance with 10 CFR 72.30(b).

Under 10 CFR 72.30(e)(5), licensees can use the financial assurance methods in 10 CFR 50.75(b), (e), and (h), as applicable, to satisfy 10 CFR 72.30 requirements. However, to satisfy 10 CFR 72.30 requirements, the funds set aside to cover the costs of decommissioning the ISFSI cannot be the same funds the licensee will use for the 10 CFR Part 50 reactor decommissioning. Note that the minimum amount in 10 CFR 50.75(c) is not intended to cover the ISFSI decommissioning costs. The funds necessary to satisfy the 10 CFR Part 50 reactor decommissioning financial assurance requirements are not to include costs for ISFSI decommissioning. A licensee can hold ISFSI decommissioning and reactor decommissioning funds in the same financial instrument, but the licensee must be able to show that ISFSI decommissioning and reactor decommissioning funds are separately tracked. Also, 10 CFR 72.30(e)(5) references "the financial assurance methods in 10 CFR 50.75(b), (e), and (h), as applicable," but does not reference 10 CFR 50.75(f), which concerns reactor decommissioning cost estimates.

For the above reasons, it is not clear to the NRC staff if your certification meets the 10 CFR 72.30(b) requirements, under which a licensee must certify that financial assurance for decommissioning its ISFSI has been provided. This certification must show that such financial assurance equals the amount of the ISFSI decommissioning cost estimate. Specifically, under 10 CFR 72.30(b)(4):

"Each holder of, or applicant for a license under this part must submit for NRC review and approval a decommissioning funding plan that must contain:
... A description of the method of assuring funds for decommissioning from paragraph (e) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility."

Further, under 10 CFR 72.30(b)(6):

"Each holder of, or applicant for, a license under this part must submit for NRC review and approval a decommissioning funding plan that must contain:
A certification that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning."

If funds from a 10 CFR Part 50 external sinking fund are to be used for Part 72 decommissioning, the NRC staff must be able to determine that adequate funds for ISFSI decommissioning reside within your external sinking fund. Moreover, these funds need to be reported separately for each ISFSI and be identified as a separate line item.

Therefore, the staff requests that you provide:

1. The breakdown of the decommissioning trust funds, including subaccount titles and funding levels for the ISFSIs at: (1) Indian Point Nuclear Generating Stations 1, 2, & 3, (2) James A. FitzPatrick Nuclear Power Plant, (3) Palisades Nuclear Plant, (4) Pilgrim Nuclear Power Station, and (5) Vermont Yankee Nuclear Power Station. Entergy does not need to provide the breakdown for Big Rock Point, because a Parent Company Guarantee is used.
2. Identification of all additional funding methods or mechanisms that are currently being used (such as a parent company guarantee) to supplement the external sinking fund or other ISFSI decommissioning funding method(s) being used.
3. The current funding amounts in, or represented by, all such funding methods.

Please note: For all such funding methods, funds may be held in separate subaccounts that are identified for ISFSI decommissioning.

4. If in your March 31, 2011, and March 29, 2013, 10 CFR 50.75(f) reports and the December 13, 2012, 10 CFR 72.30(b) submittals, you reported a single amount that included both estimated reactor and ISFSI decommissioning costs, then you should explicitly identify in your response: (1) the estimated reactor decommissioning cost, and (2) the estimated ISFSI decommissioning cost.

Please note: Future 10 CFR 50.75(f) reports should clearly delineate estimated reactor and ISFSI decommissioning costs.

This information is needed to verify compliance with 10 CFR 72.30(b).

Response to Subparts 1, 2, and 3

As noted in ENO's December 13, 2012 10 CFR 72.30 filings in the Financial Assurance sections for each facility (ADAMS Accession No. ML12352A126), until such time as the costs can be recovered from the U.S. Department of Energy (DOE) attributable to the DOE's failure to perform its spent fuel removal obligations, each of the licensees plans to use the funds in its respective decommissioning trust fund to terminate its ISFSI license and release its facility for unrestricted use. The funds that each licensee has dedicated to cover the costs of decommissioning its ISFSI represent funds in its decommissioning trust that are in excess of the funds in that trust that are dedicated to 10 CFR Part 50 reactor decommissioning.

The table below sets forth: (1) the decommissioning funds that were available as of the 10 CFR 72.30 filing (October 1, 2012), (2) the decommissioning funds that were available as of that date with earnings, (3) the funding required for each facility for reactor decommissioning per 10 CFR Part 50, (4) the amount in the decommissioning fund as of October 1, 2012 that are in excess of the amount required for 10 CFR Part 50 decommissioning, and (5) the estimated ISFSI decommissioning cost computed as of October 1, 2012. The portion of the excess that is equal to the amount of the ISFSI decommissioning cost estimate represents the funds reserved to comply with 10 CFR 72.30.

Plant Site		Decom. Trust Funds Oct. 1, 2012 ¹	Decom. Trust Funds w/ earnings ([A]) ²	10 CFR Part 50 Decom. Amount ([B]) ³	Surplus ([A] – [B])	ISFSI Decom. Cost Est. ⁴
Palisades		\$308M	\$477M	\$452M	\$25.0M	\$3.78M
Indian Point	Unit 1	\$330M	See Note 2	See Note 3	\$427M ⁵	\$1.98M
	Unit 2	\$428M	See Note 2	See Note 3	\$238M ⁶	
Indian Point Unit 3		\$567M	\$649M	\$488M	\$162M	\$1.98M
FitzPatrick		\$619M	\$1,029M	\$607M	\$422M	\$2.88M
Pilgrim		\$724M	\$1,148M	\$585M	\$563M	\$2.75M
Vermont Yankee ⁷		\$542M	\$856M	\$580M	\$276M	\$2.75M

As shown in the table, as of December 31, 2012 each facility's decommissioning trust fund has sufficient funds to cover both its 10 CFR Part 50 decommissioning obligations and its ISFSI decommissioning obligations. Consequently, no additional funding methods or mechanisms are currently being used to provide funding assurance for each licensee's Part 72 decommissioning (Subpart 2).

Further, the current funding amount for each licensee's Part 72 decommissioning is the amount in its decommissioning trust fund that is equal to the amount of its ISFSI

¹ See the entry "Amount in Trust Fund" in Table 3 of the Palisades, Indian Point 3, Pilgrim, and Vermont Yankee ISFSI Decommissioning Funding Plans. For Indian Point 1 and 2, see the balance entry reported in the 2012 line on Tables 4 and 5 for the Indian Point 1 and 2 ISFSI Decommissioning Funding Plan.

² See the entry "Total of Steps 1-3" in Table 3 of the Palisades, Indian Point 3, Pilgrim, and Vermont Yankee ISFSI Decommissioning Funding Plans. Indian Point 1 and 2 use a SAFSTOR analysis; the SAFSTOR analyses presented in Tables 4 and 5 of the Indian Point 1 and 2 plan do not provide a cumulative trust fund balance with earnings.

³ See the entry "Amount of NRC Minimum / Site Specific," in Table 3 of Palisades, Indian Point 3, Pilgrim, and Vermont Yankee ISFSI Decommissioning Funding Plans. Indian Point 1 and 2 use a SAFSTOR analysis; the SAFSTOR analyses presented in Tables 4 and 5 of the Indian Point 1 and 2 plan provide a cash flow for the decommissioning amount to arrive at the surplus.

⁴ See Table 2 in the respective ISFSI decommissioning funding plans for the indicated facilities.

⁵ See the entry for the 2073 "Ending DTF Balance" in Table 4 of the Indian Point 1 and 2 ISFSI Decommissioning Funding Plan.

⁶ See the entry for the 2073 "Ending DTF Balance" in Table 5 of the Indian Point 1 and 2 ISFSI Decommissioning Funding Plan.

⁷ Since issuing the ISFSI decommissioning funding plan for Vermont Yankee, ENO provided notice to the NRC in a letter dated September 23, 2013 (ADAMS Accession No. ML13273A204) of its decision to permanently cease operating that facility at the end of the current operating cycle. ENO will continue to provide updated financial information as required by NRC regulations.

decommissioning cost estimate (Subpart 3). Note that Vermont Yankee currently has a \$40M parent company guarantee in place to support its decommissioning obligations, although the most recent 10 CFR 50.75(f) and 10 CFR 72.30 reports indicate the guarantee was not needed to comply with NRC requirements. The Vermont Yankee \$40M parent company guarantee amount is not reflected in the table.

Response to Subpart 4

The March 31, 2011 and March 29, 2013 10 CFR 50.75(f) reports, and the December 13, 2012 10 CFR 72.30(b) report, did not include ISFSI decommissioning costs (except where costs were expressly noted to be ISFSI costs in the 10 CFR 72.30(b) report), either in the NRC minimum amounts or in the cash flows for the SAFSTOR scenarios for Indian Point 1 and 2.

ENO acknowledges the NRC's request that future 10 CFR 50.75(f) reports should separately delineate estimated reactor and ISFSI decommissioning costs.